Field Network Testing Instrument

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FHO5000 Series Triple-Proof OTDR

Description

FHO5000 series Optical Time Domain Reflectometer(OTDR) is the new generation of intelligent meter for the detection of fiber communications systems. It performs excellently not only in the detection range & precision, but also in triple-proof function——water proof, shocking proof and dropping proof. With the popularize of optical network construction in cities and countrysides, the measurement of optical network became short and disperse,FHO5000 is specially designed for that kind of application, its economic and also have outstanding performance.

FHO5000 is manufactured with patience and carefulness , following the national standards to combine the rich experience and modern technology, subject to stringent mechanical,electronic and optical testing,quality assurance,in the other way, new design makes FHO5000 more smart and compact and multi-purpose ,also it has various functions. Whether you want to detect link layer in the construction and installation of optical network or proceed efficient maintenance and trouble shooting ,FHO 5000 can be your best assistant.

Part Number	Description
FHO5000	FHO5000 OTDR, 32/30dB, 1310/1550nm

Features

- Water proof——incredible water proof function which ensures a stable working performance even in pouring rain
- Shocking proof——excellent shocking proof function makes it works more stable in any tough environment
- Dropping proof——adopt special rubber material protection side sheath which provides a great protection for accidental dropping form 1.5m height.
- Multiple dynamic range——several dynamic range to select:34/32dB, 40/38dB, 43/41dB
- 1625nm online detection module with filter is available as a option for a online FTTx/PON detection.
- Multi-measuring mode, simple to use, finish measurement by just one button.
- Realtime measuring function, convenient to monitor the splicing process.
- Internal large power(10mw) visual laser source for accurate positioning the closer fault point.
- Optical power meter function is offered as a option.
- Warnning function could prevent module of OTDR damaged by optical signal.
- Integrated with 2 main USB and one sub USB port, for controlling by PC or connect external instrument.
- Integrated with Screenshot function,
- PC Remote access and control function is available via RJ45 interface or the optional WIFI module.
- Support chinese and english input,friendly interface,analog keyboard capable.
- Integrated with 4G internal memory. Storage more than 40000 groups curve.
- Provide data simulation software to process, generate and print report.
- Long working hours for outdoor operation.

Specification

Type	FHO5000-D34	FHO5000-D35	FHO5000-D40	FHO5000-D43	FHO5000-T40/T40F	FHO5000-T43/T43F
Testing wavelength	1310/1550nm	1310/1550nm	1310/1550nm	1310/1550nm	1310/1550/1625nm	1310/1550/1625nm
Dynamic range	34/32dB	35/33dB	40/38dB	43/41dB	40/38/38dB	43/41/41dB
Event Dead Zone	0.8m	0.8m	1m	1m	1m	1m
Attenuation Dead Zone	4m	4m	4m	5m	4m	5m
Pulse Width	3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs					
Linearity	≤0.05dB/dB					
Attenuation Resolution	0.01dB					
Sampling Resolution	minimum 0.25m					
Sampling Point	Maximum 128,000 points					
Distance Accuracy	±(1m+measuring distance×3×10-5+sampling resolution)					
Internal visual source	10mw, CW/2Hz					
Stable laser source	-5dBm					
DataStorage	40000 groups of curve					
Interface	RJ45 port , 3 USB port					
Display	7 inchTFT-LCD (support touch screen function)					
Battery	7.4V/4.4Ah lithium battery (with air traffic certification) , continuous 6 hours					
Working Temp	-10℃~+50℃					
Storage Temp	-20℃~+75℃					
Dimension	253×168×73.5mm / 1.5kg					
Accessories	Main unit, 12V power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case					
Option	SC/ST/LC adapter, Bare fiber adapter, 200m FC/PC patchcord					

Order Information

Type	Testing wavelength	Dynamic range	Event/Attenuation dead-zone
FHO5000-D34	1310/1550nm	34/32dB	0.8/4m
FHO5000-D35	1310/1550nm	35/33dB	0.8/4m
FHO5000-D40	1310/1550nm	40/38dB	1/4m
FHO5000-D43	1310/1550nm	43/41dB	1/5m
FHO5000-T40/T40F	1310/1550/1625nm("F" means with filter)	40/38/38dB	1/4m
FHO5000-T43/T43F	1310/1550/1625nm("F" means with filter)	43/41/41dB	1/5m

FHS2 Series Laser Source

Description

Fibercasa provides high precision laser source. The FHS2 series laser source offers excellent stability and portability for accurate fiber optic testing.

Dual-wavelength, triple-wavelength and quad-wavelength laser sources are available. If user tests a fiber with both FHS2 series laser source and FHP2 series power meter, the TWIN function can be booted. With this function, the power meter can automatically detect the wavelength FHS2 series laser source launched.

Features

- Both single mode and multiple mode laser are available
- Single output interface
- Durable and portable
- Auto power-off function
- TWIN function is available
- Integrated with continuous wave output function, 270Hz, 1kHz and 2kHz are available

Specification

FHS2D series laser source

	FHS2D02	FHS2D03
Output wavelength(nm)	1310&1550	850&1300
Emitter type	LD	
Output stability	Short term(15min):<±0.05dB@1310,	
Central wavelength	1550nm;±0.1dB@850&1300	
	Long term(8hours):<±0.1dB@1310,	
	1550nm±0.2dB@850&1300	
	1310±20nm&1550±20nm	850±10nm&1300±20nm
Spectral width	5nm	
Output frequency(Hz)	270.1k.2k	
Output power	-5dBm	
Adjustable range	±3dB,0.1dB/step	
Auto power-off	Yes	
Back-light	Yes	
Operating temperature	-10to+50°C	
Storage temperature	-20to+70°C	
Power supply	2pcs*Ni-MHAA(2500mAh)	
Dimension(mm)	160L*76W*45H	
Net weight	270g	

Standard accessories

USB cable , AC adaptor, CD disc, user manual, carrying case, 2*AA chargeable battery

Part Number	Description
FHS2D02	FHS-2D02 optical laser source,1310/1550nm, FC/PC connector, -8~-2dBm

Part Number	Description
FHS2D02F	FHS-2D02F optical laser source,1310/1550nm, FC/PC connector, -5dBm, fixed output power

Part Number	Description
FHS2D03	FHS-2D03 optical laser source,850/1300nm, FC/PC connector, -8~-2dBm

Part Number	Description
FHS2D03F	FHS-2D03F optical laser source,850/1300nm, FC/PC connector, -5dBm, fixed output power

Specification

FHS2Q series laser source

	FHS2Q01	FHS2Q02F
Output Wavelength(nm)	850/1300/1310/1550	1310/1490/1550/1625
Emitter Type	LD	
Output Stability	Short Term(15min): <±0.05dB@1310,1550nm: ±0.1dB@850&1300 Long Term(8 Hours): <±0.1dB@1310,1550nm): ±0.2dB@850&1300	Short Term(15minutes): <±0.05dB@1310,1550nm: ±0.1dB@1490,1625nm Long Term(5 Hours or above <±0.1dB@1310,1550nm): ±0.2dB@1490,1625nm
Central Wavelength	1310±20nm&1550±20nm	850±10nm&1300±20nm
Spectral Width	5nm	
Output Frequency	270,1K,2K	
Output Power	-5dBm	
Auto Power-off	Yes	
Back-light	Yes	
Operating Temperature	-10 to +50℃	
Storage Temperature	-20 to +70℃	
Power Supply	2pcs*Ni-MH AA(2500mAh)	
Dimension(mm)	160L*76w*45h	
Net Weight	270g	

Standard accessories

2*AA Ni-MH battery, FC adaptor, SC adaptor, AC adaptor, user manual, CD disk, screw-driver, carrying case

Part Number	Description
FHS2Q01F	FHS2Q01F optical laser source, 850/ 1300/ 1310/ 1550, FC/PC connector, -5dBm

Part Number	Description
FHS2Q02F	FHS2Q02F optical laser source, 1310 /1490 /1550 /1625nm, FC/PC connector, -5dBm

FHS2T series laser source

	FHS2T01	FHS2T01F
Output Wavelength(nm)	1310/1490/1550	
Emitter Type	LD	
Output Stability	1310nm&1550nm	Short Term(15minutes):<0.05dB Long Term(5Hours or above):<0.1dB
	1490nm	Short Term(15minutes):<0.1dB Long Term(5Hours or above):<0.2dB
Central Wavelength	1310±20nm/1490±20nm/1550±20nm	
Spectral Width	5nm	
Output Frequency(Hz)	270,1k,2k	
Output Power	-5dBm	
Adjustable Range	±3dB,0.1dB/step	N/A
Auto Power-Off	Yes	
Back-light	Yes	
Operating Temperature	-10to+50°C	
Storage Temperature	-20to+70°C	
Power supply	2pcs*Ni-MH AA;6V AC/DC Adaptor	
Dimension(mm)	160L*76W*45H	
Net Weight	260g	

Standard accessories

2*AA Ni-MH battery, FC adaptor, SC adaptor, AC adaptor, user manual, CD disk, screw-driver

Optional accessories

FC/APC, SC/APC, ST/APC connector

Part Number	Description
FHS2T01	FHS-2T01 optical laser source,1310/1490/1550nm, FC/PC connector, -8~-2dBm

Part Number	Description
FHS2T01F	FHS-2T01F optical laser source,1310/1490/1550nm, FC/PC connector, -8~-2dBm

FHS1 Series Laser Source

Description

Fibercasa provides high precise mini type laser source. The FHS1 series laser source offers excellent stability and portability for accurate fiber optic testing.

Single output port provides stable laser power at dualwavelength. The compact unit operates in either continuous wave (CW) mode or modulated mode. A low battery indicator reminds the user of replacing the battery

Features

- Both single mode and multti-mode laser are available
- Single output interface
- Durable and portable
- Auto power-off function
- Integrated with continuous wave output function, 270Hz, 1kHz and 2kHz are available

Part Number	Description
FHS1D02	FHS-1D02 optical laser source,1310/1550nm, FC/PC connector, -5dBm±1

Part Number	Description
FHS1D03	FHS-1D03 optical laser source,850/1300nm, FC/PC connector, -5dBm±1dB

Specification

FHS1D series laser source

	FHS-1D02	FHS-1D03
Output Wavelength	1310nm&1550nm	850nm&1300nm
Emitter Type	LD	
Connector	FC/PC	
Output Stability	Short Term(15minutes):<0.1dB Long Term(5Hours or above):<0.2dB	
Central Wavelength	1310±20nm&1550±20nm	850±10nm&1300±20
Spectral Width	5nm	
Output Frequency(Hz)	270,1K,2K	
Output Power	-5dBm±1dB	
Auto Power-off	Yes	
Back-light	Yes	
Operating Temperature	-10to+50℃	
Storage Temperature	-20to+70℃	
Power Supply	Li-ion Battery;5v AC/DC Adaptor	
Dimension(mm)	115L*65W*30H	
Net Weight	140g	

Standard accessories

Li-HM battery, FC adaptor, AC adaptor, user manual, screw-driver

Customization

SC/ST connector, APC laser launcher

FHP2 Series Optical Power Meter

Description

Fibercasa provides high precision power meter. It's a handheld design testing equipments for the accessing and maintanence of optical network. Of cause, this equipments is also functional an intelligent.

Under the situation of laboratory, LANs, WANs and CATV as well as long distance optical network, the optical power meters, together with Fibercasa's stabilized laser sources, can be used to identify optical fiber, measure optical attenuation, verify continuity and evaluate fiber link transmission quality.

Features

- Integrated with high performance optical detector
- Auto-wavelength Recognition:
  The FHS2D02 and FHS2D03 units can transmit with a wavelength identification digital encrypted protocol,enabling the FHP2 Power Meter to automatically use the proper calibration parameters.This feature reduces the need for communication between the two technicians and decreases the potential error.
- LCD backlight for easy operation in dark environments
- Referencing function:
  Signal encrypting can also give the receiving end information on the power to be used as reference,helping ensure efficient referencing,even when the two units are far apart.
- Memory capacity of 1000 data items,enables data transfer to PC USB connection
- More connectors are optional and interchangeable to the user
- Two powering systems:Internal rechargeable batteries or AC adaptor
- Wide dynamic range and high power measurement capability
- High accuracy and stability
- Auto-off function

Specification

FHS1D series laser source

	FHP2A02	FHP2A04	FHP2B02	FHP2B04
Calibrated Wavelength(nm)	850/1300/1310/1490/1550/1625			
Working wavelength(nm)	800~1700nm			
Detection range	-70~+10dBm @1550		-50~+26dBm @1550	
Detector Type	InGaAs			
Connector	FC/PC and SC/PC (interchangeable)			
Accuracy	±5%±1nW		±5%±10nW	
Resolution	0.01dB@-60 to +10dBm 0.1dB@-70 to -60dBm		0.01dB@-40 to +26dBm; 0.1dB@-50 to -40dBm	
Linearity	±5%			
Auto Power-off	Yes			
Back-light	Yes			
Reference Value	Yes			
Measuring Range(dBm)	-70 to +10		-50 to +26	
USB Interface	N/A	Yes	N/A	Yes
Data Storage	N/A	Yes	N/A	Yes
Wavelength Recognize	N/A	Yes	N/A	Yes
Tone Detection(Hz)	270,1K,2K			
Operating Temperature	-10to+50℃			
Storage Temperature	-20to+70℃			
Power Supply	2pcs*Ni-MH AA(2500mAh);6v AC/DC adaptor			
Dimension(mm)	160L*76W*45H			
Net Weight	270g			

Standard accessories

2*AA Ni-MH battery, FC adaptor, SC adaptor, AC adaptor, USB cable (only for 2A04 & 2B04), software CD disk(only for 2A04 & 2B04), user manual, screw-driver

Part Number	Description
FHP2A02	FHP2A02 optical power meter, 850/1300/1310/1490/1550/ 1625nm, FC/PC&SC/PC connector, -70 to +10dBm, without USB, data storage and wavelength recognition functions

Part Number	Description
FHP2A04	FHP2A04 optical power meter, 850/1300/1310/1490/1550/ 1625nm, FC/PC connector, -70 to +10dBm, with USB, data storage and wavelength recognition functions

Part Number	Description
FHP2B04	FHP2B04 optical power meter, 850/1300/1310/1490/1550/ 1625nm, FC/PC connector, -50 to +26dBm, with USB, data storage and wavelength recognition functions

Part Number	Description
FHP2B02	FHP2B02 optical power meter, 850/1300/1310/1490/1550/ 1625nm, FC/PC connector, -50 to +26dBm, without USB, data storage and wavelength recognition functions

F2H FHP12 Series Mini Optical Power Meter

Description

FHP12 Mini type optical power meter has compact structure and stable performance, ensures high measuring precision of 850nm, 1300nm, 1310nm, 1490nm, 1550nm and 1625nm wavelengths. Use together with GS series optical source could accurately measure the loss of fiber, cable and other passive optical devices.

Part Number	Description
FHP12-A	FHP12-A, mini optical power meter, calibration wavelength: 850/1300/1310/1550/1490/1625nm, +10~-70dBm @1550nm
FHP12-B	FHP12-B, mini optical power meter, calibration wavelength: 850/1300/1310/1550/1490/1625nm, +26~-50dBm @1550nm

Features

- Imported sensor head .
- 2.5mm universal interface(support FC/SC/ST connectors).
- Low power consumption
- ,continuous work more than100 hours .
- Linear optical power and logarithmic power display.
- Automatic measuring range adjust and power remains indication.
- Relative value measurement function.
- Compact and portable design.

Specification

Type	FHP12-A	FHP12-B
Display Range	+10~-70dBm @1550nm	+26~ - 50dBm @1550nm
Resolution(dB)	0.01	
Calibrated Wavelength(nm)	850/1300/1310/1550/1490/1625	
Sensor Type	InGaAs	
Accuracy	0.35dB ±1nW	0.35dB ±10nW
Working Wavelength(nm)	800~1700	
Continuous Working Hours	About 230 hours(stand-by time : About 3500hours)	
Power Source	2pieces of #7 batteries	
Working Temp	-10℃~+50℃ ; <90%RH	
Storage Temp	-20℃~+70℃ ; <90%RH	
Accessory	2 pieces of #7 batteries, Quick guide, Packing box, Carrying case	
Dimension	L120mm×W33mm×H30mm / About70g	

FCA-10 CWDM Analyzer

Description

FCA-10 handheld CWDM Analyzer is specially designed for CWDM installation, maintenance and troubleshooting, which is able to measure and monitor power values of 10 CWDM channels. FCA-10 can replace high-cost.

Spectrometers can conduct quick and reliable measurements in all environments. With the light, compact, sturdy design and high performance, FCA-10 is the ideal tool for CWDM installation and maintenance.

Part Number	Description
FCA-10	FCA-10 CWDM analyzer

Features

- Hand-held , more compact and easy to operate
- TFT LCD display
- 10 CH wavelength testing : 1431nm~1611nm
- Histogram or list data display modes
- Able to work as the normal power meter
- Inner timing system
- Threshold configuration : able to preset threshold value
- Data Transfer to PC via USB
- Back l ight function
- 10 hours continuous work
- Data storage & download

Specification

FCA-10 technical parameters	
Wavelength (nm)	1431 ~ 1611
Power Range (dBm)	-40 ~ +10
Channel Number	10
Channel Spacing	20nm
Central Wavelength	ITU
Channel Band-pass	ITU±6.5nm
Channel Power Resolution	±0.01 dB
Channel Power Accuracy	±0.5 dB
Maximum Input Power	13dBm
Return Loss	>45dB
Close Channels Insulation	≥25dB
Non-close Channels Insulation	≥30dB
Threshold Setting	10 Wavelengths
Reference Value(REF)	10 Wavelengths
Data Storage	1000 sets
Connectivity	USB
Detector Type	InGaAs
Appl ication Range	Single Mode Fiber
Connector	FC/PC (Interchangeable SC, ST)
Backlight	Yes
Power Saving	Auto-off after 5 minutes unused
Power module parameters	
Cal ibrated Wavelength (nm)	850 ,1300 , 1310 , 1490 , 1550 , 1625
Power Range (dBm)	-60 ~ +10
Unit	mW/uW/nW/dBm/dB(REF)
Resolution	±0.25 dB (5%) @25℃
Physical parameters	
Power Supply	NiMH Rechargeable Battery / AC Adaptor
Battery Life	Continuous Operation ≥10 Hours
Work Temperature	0℃~ 50℃
Relative Humidity	0 ~ 95%
Dimension (L×W×D)	L*W*H 190mm*105mm*55mm
Weight	700g
Standard accessories	
NiMH battery , AC adaptor , USB data cable , Software CD , Soft carrying case , User guide , Quality report	

FHP1 Series Mini Optical Power Meter

Description

Fibercasa provides high precise mini power meter. The FHP1 series of power Meter are designed for use with an optical source for performing optical loss measurements on fiber optic cables. FHP1 series is designed for the low budget. It can meet the basic demand in real testing. With the smaller weight, it is easier to take in real testing.

Features

- Integrated with high performance optical detector
- Mini size, light weight, great portability
- Lower power consumption
- Easy to use
- Integrated with auto-power-off, low power indication and measurement interchanging functions
- Internal charging circuit, back light
- Lower cost

Part Number	Description
FHP1A02	FHP1A02 optical power meter, 850/1300/1310/ 1490/1550 /1625nm, FC/PC and SC/PC (interchangeable) , -60 to +3dBm

Part Number	Description
FHP1B02	FHP1B02,optical power meter,850/1300/1310/ 1490/1550/ 1625nm, FC/PC and SC/PC (interchangeable), -40 to +23dBm

Specification

FHS1 series Mini Optical Power Meter

	FHP-1A02	FHP-1B02
Calibrated Wavelength (nm)	850/1300/1310/1490/1550/1625	
Emitter Type	InGaAs	
Connector	FC/PC and SC/PC(interchangeable)	
Accuracy	±0.35db±10nW	
Resolution	0.01db	
Linearity	±5%	
Auto Power-off	Yes	
Back-light	Yes	
Reference Value	Yes	
Meassuring Range(dbm)	-60 to +3	-40 to +23
USB Interface	N/A	
Data Storage	N/A	
Wavelength Recognition	N/A	
Tone Detection(Hz)	N/A	
Operating Temperature	-10to+50℃	
Storage Temperatue	-20to+70℃	
Power Supply	Li-ion Battery;5v AC/DC Adaptor	
Dimension(mm)	115L*62W*30H	
Net Weight	140g	

Standard accessories

Lithium battery, FC/SC adaptor, USB cable, AC adaptor, user manual, CD disk, screw-driver

PON Series Optical Power Meter

Description

Fibercasa provides high precise PON power meter. Both small size and normal size are available.

FHP2P01 PON power meter is a small size, low loss and good quality handed-held optical power meter. It is designed for the testing , installation and maintenance of FTTX PON network , which can be used for APON, BPON, EPON and GPON network. FHP2P01 has two output ports for ONU and OLT/Video, which supports CW/burst upstream detection at 1310nm and downstream signal at 1490/ 1550nm. It can directly show the status of pass , warning or failure by threshold testing . FHP2P01 is the ideal tool for PON setting and maintenance.

The industry's advanced PON-specific power meter,the FHP3P01 is the flagship of Fibercasa's product line of test instruments specifically intended for FTTH and FTTP systems.The FHP3P01 is the ideal tool for FTTH/FTTP service activation and troubleshooting.

Features

- Handed-held, easy to use
- P/F testing and normal testing mode
- Two testing ports with " ONU " & " OLT/Video "
- Support 1310nm upstream CW/burst signal and 1490nm /1550 nm downstream signal
- Design for networks of APON, BPON, EPON and GPON
- Threshold programmable
- Huge data storage capability
- USB integrated built-in battery charger
- 2pcs of AAA battery as power supply
- Software is available for communicating

Specification

FHP2P01 small size PON power meter

Calibrated Wavelength	1310nm (Burst) 1310nm(CW)	1490 nm	1550 nm
Linearity(dB)	± 0.2@1550 ≥ -40dBm		
Isolation Rate(dB)	>40@1490nm	>40@1310nm	>40@1310nm
	>40@1550nm	>30@1550nm	>30@1490nm
Measuring Range (dBm)	-30~+16	-40~+16	-50~+16
Insertion Loss(dB)	1.5		
Broadband	1260~1360	1480~1500	1539~1565
Accuracy	0.5db±1nW @ 1550 nm		
Threshold	10 groups(configure via PC-software)		
Data Storage	900		
Accessories Adaptors	SC/PC(standard)		
	ST/PC ,FC/PC (Optional)		
Operating Temperature	-10+50°C		
Relatie Humidity	0%~95%,non-condensing		
Communication port	USB port		
Dimension	160mm*76mm*45mm		
Weight	About 400g		
Standard accessories	2*AA battery, USB cord, screw-driver, user manual, AC adaptor, CD disk		
Optional accessories	Rechargeable battery, carrying case		

Part Number	Description
FHP2P01	FHP2P01 PON Optical Power Meter

FHP3P01 normal size PON power meter

Connector Type	FC/PC SC/PC ST/PC		
Measurement Range	1310nm (Burst) 1310nm(CW)	1490nm	1550nm
(Continuous Datastream)	-40dBm~+10dBm	-40dBm~+10dBm	-40dBm~+20dBm
Burst Measurement Range (1310nm Bursted Signal)	-30dBm~+10dBm		
Spectral Passband	1310nm	1490nm	1550nm
	1260nm~1360nm	1480nm~1550nm	1539~1565nm
Insertion Loss	1.5dB		
Accuracy	±0.5dB		
Linearity	±0.2dB		
Data Storage	1000Sets		
Display	2.8inch TFT LCD		
Refresh Rate of Display	2.5Hz		
Threshold	10sets(configured via PC-based software)		
Auto Power-off	Yes		
Number of Ports	2(1 for ONU,1 for OLT&video)		
Operating Temperature	-10+50°C		
Relatie Humidity	0%~95%,non-condensing		
Power Supply	1.2*4pcs Ni-MH,AA;12 AC/DC Adapter		
Battery Life	>20 hours		
Dimension	190mm*105mm*55mm(L*W*H)		
Net Weight	700g		
Standard accessories	FC/PC, SC/PC, ST/PC interchangeable connectors, user manual, carrying case, CD disk, USB cable , AC adaptor, silicon boot		
Optional accessories	FC/PC male to LC/PC female adaptor		

Part Number	Description
FHP3P01	FHP3P01 PON Optical Power Meter

FHM2 Series Optical Multimeter

Description

Fibercasa provides high precise optical multimeter. FHM2 series optical multimeter integrates a stable laser source and a precise optical power meter.

The laser source unit launches the laser which the wavelength is at 1310/1490/1550nm or 1310/1550nm(according to the model). The optical power meter unit can recognize the wavelength automatically. It is certain that, multimeter offers a large storage capacity. With the assorted software, user can generate a report or manage the test report easily.

Features

- Three output wavelength at one output interface
- Both continuous wave and modulated wave are available, the frequency of modulated signal is 270Hz, 1kHz, 2kHz
- Back light display
- Integrated with charging circuit
- 999 test result storage
- USB interface for connecting PC with assorted sofware
- Automatic shutdown in low power status

Part Number	Description
FHM2A01	Dual wavelength optical multimeter, calibration wavelength: 850/1300/1310/1490/1550/1625nm, launch wavelength: 1310/1550nm, measure range:-70 to +10dBm

Part Number	Description
FHM2B01	Dual wavelength optical multimeter, calibration wavelength: 850/1300/1310/1490/1550/1625nm, launch wavelength:1310/1550nm, measure range:-50 to +26dBm

Specification

FHM2x01 dual wavelength multimeter

	FHM2A01	FHM2B01
Power meter parameters		
Calibration wavelength(nm)	850/1300/1310/1490/1550/1625	
Connector	Interchangeable FC/SCfor PC/APC	
Data storage(items)	999	
Ref.Value	Yes	
Display Units	dB/dBm/mW/uW	
Display precision(dB)	0.01	
Accuracy	±5%±1nW	
Wavelength Recognition	1310/1550/(input power≥-40dBm)	
Tone Detection	270Hz/1KHz/2KHz(input power≥-40dBm)	
Measuring Range(dBm)	-70 to +10	-50 to +26
Laser source parameters		
Output Wavelength(nm)	1310/1550	
Connector	Interchangeable FC/SC for PC	
Modulation Frequency	270/1K/2K Hz	
Output Power	-5dBm±0.5dB	
Stability Long-term(8h)	±0.1dB@1310/1550nm	
Stability Short-term(15min)	±0.05dB@1310/1550nm	
Wavelength Recognizing Code	Yes	
Auto Power off	√	
General parameters		
Power Supply	2pcs *NiHM 1.2V,2000mAh;AC/DC Adaptor	
PC Interface	USB	
Battery Life	>100Hours(laser off)	
Storage Temperature	-20℃~+70℃	
Operating Temperature	-10℃~+50℃	
Relative Humidity	<90%(Non-condensing)	
Dimension(mm)	168L×76W×45H	
Weight(g)	260	

Standard accessories

(LD)FC connector, (LD)SC connector, (PD)FCΦ1000 adaptor, (PD) SCΦ1000 adaptor, 2*AA Ni-MH battery, AC adaptor, screw-driver, PC disk, USB cable, user manual, carrying case

Optional accessories

Only for power meter module: 1.25mm multi-connector or 2.5mm multi-connector

Customization

Only for laser source module: FC/APC or SC/APC or ST/APC

Specification

FHM2x02 multimeter

	FHM2A02	FHM2B02
Power meter parameters		
Calibration Wavelength(nm)	850/1300/1310/1490/1550/1625	
Connector	Interchangeable FC/SCfor PC/APC	
Data Wtorage(items)	999	
Ref.Value	Yes	
Display Units	dB/dBm/mW/uW	
Display Precision(dB)	0.01	
Accuracy	±5%±1nW	
Wavelength Recognition	1310/1490/1550/(input power≥-40dBm)	
Tone Detection	270Hz/1KHz/2KHz(input power≥-40dBm)	
Measuring Range(dBm)	-70 to +10	-50 to +26
Laser source parameters		
Output Wavelength(nm)	1310/1490/1550	
Connector	Interchangeable FC/SC for PC	
Modulation Frequency	270/1K/2K Hz	
Output Power	-5dBm±0.5dB	
Stability Long-term(8h)	±0.1dB@1310/1550nm;±0.2dB@1490nm	
Stability Short-term(15min)	±0.05dB@1310/1550nm;±0.1dB@1490nm	
Wavelength Recognizing Code	Yes	
Auto Power off	√	
General parameters		
Power Supply	2pcs *NiHM 1.2V,2000mAh;AC/DC Adaptor	
PC interface	USB	
Battery Life	>100Hours(laser off)	
Storage Temperature	-20℃~+70℃	
Operating Temperature	-10℃~+50℃	
Relative Humidity	<90%(Non-condensing)	
Dimension(mm)	168L×76W×45H	
Weight(Gram)	260	

Standard accessories

(LD)FC connector, (LD)SC connector, (PD)FCΦ1000 adaptor, (PD) SCΦ1000 adaptor, 2*AA Ni-MH battery, AC adaptor, screw-driver, PC disk, USB cord, user manual, carrying case

Optional accessories

Only for power meter module: 1.25mm multi-connector or 2.5mm multi-connector

Customization

Only for laser source module: FC/APC or SC/APC or ST/APC

mber	Description
.02	**Triple wavelength optical multimeter, detect wavelength: .850/1300/1310/1490/1550/ 1625nm, launch wavelength: 1310/1490/1550nm, measure range: -70 to +10dBm**

Part Number	Description
FHM2B02	**Triple wavelength optical multimeter, detect wavelength: .850/1300/1310/1490/1550/ 1625nm, launch wavelength: 1310/1490/1550nm, measure range: -50 to +26dBm**

FHR3A Series Fiber Ranger

Description

Fibercasa FHR3A series fiber ranger is a high performance testing meter for the daily maintenance, fault location and detection of the optical network system. It is suitable for WAN, LAN, metro LAN, CATV and etc.

FHR3A series fiber ranger is a high performance optical fiber troubleshooter for locating fiber break and imperfections. It detects the location of the break point and attenuation points in the optical fiber and displays the result on the LCD. This portable, easy to use fiber ranger is an ideal instrument for fiber cable construction and maintenance.

Part Number	Description
FHR3A02	FHR3A02 fiber ranger with visual fault internal locater

Features

- Low dead zone of only 10 meters
- Back-light LCD display
- Rechargeable batteries support up to 5000 times measurement
- Data transmission and storage through mini USB
- Build-in visual fault location

Specification

FHR3A series fiber ranger	FHR3A02
Fiber type	Single mode
Working wavelength	1550±20nm
Emitter type	LD
Connector type	FC/PC (optional SC, ST)
Pulse width	10ns/20ns/40ns/80ns/160ns/320ns/640ns/1280ns/2560ns/5120ns/10240ns/20480ns
Max. Output power	90mW
Max. measurement range	100km (reflection event >1dB)
Reflection event distance accuracy	±(2+0.1% x distance)
Non-reflection event distance accuracy	±(100 + 0.5% x distance)
Data storage	260 measurement
Dead zone	10m (reflection event)
Power supply	AC/DC adaptor and rechargeable batteries*4
Battery life	5000 times measurement
Operation temperature	-10to+50℃
Storage temperature	-20to+70℃
Humidity	0~85% (non-condensing)
Communication port	Mini USB
Weight	400g
Dimension	190*105*55mm
Max event counts	13 reflective events & 13 non-reflection events
Inner visual fault locater parameters	
Wavelength	650±10nm
Output power	5mW (± 1mW adjustable)
Modulated frequency	2Hz
Standard accessories	
4*AA Ni-HM battery, 2*FC/SC/ST adaptors, AC adaptor, CD disk, USB cable , user manual, carrying case	

FRL Series Insertion/Return Loss Meter

Description

Fibercasa provides high precise optical insertion return loss meter. The optical insertion/return meter is an integrated tester for optic fiber network, and cable manufacturer to verify the quality of fiber leads, with the features of handheld, intelligent and multi-functional.

The meter is designed to be a combination of optical insertion loss tester, optical power meter, laser source , but also work as a self-testing system to measure optical loss of optic fiber cable and passive device. FRL is an ideal tool to verify the polish quality of fiber, measure optical return loss in field installation, proceed with routine inspection. It is no doubt that it is an excellent instrument for Optic Telecom and CATV network, as well as lab test and research work.

Features

- High-precision ORL testing at 2or3 wavelengths (according to the model)
- Three instruments in one:return loss meter/power meter/insertion loss meter
- Internal data storage up to 500 records
- Both batteries or AC power supply interchangeable connectors with FC/SC/ST

Specification

FRL series optical insertion return loss meter

Model	FRL-02	FRL-03
Return loss meter		
Working wavelength	1310nm, 1550nm	1310nm, 1490nm, 1550nm
Measurement range	0~65dB	
Calibrated wavelength	1310nm, 1550nm	1310nm, 1490nm,1550nm
Measurement accuracy	0~55dB:0.4dB 55~65dB:1dB	
Stability	0.05dB/15min	
Connector type	FC/SC	
Resolution	0.1dB	
Data memory	500 measurement results	
Power output	-2dBm±0.5dB	
Power meter		
Calibrated wavelengths	850nm,1300nm,1310nm,1490nm,1550nm,1625nm	
Measurement range	-70dBm-10dBm	
Measurement accuracy	-70dBm~-60dBm:1dB;-60dBm~+10dBm:±0.2dB±1nW	
Modulation detection	Yes	
Resolution	70~-60dBm:0.1dB;-60~+8dBm:0.01dB	
Data storage	500measurement results	
Laser source		
Working wavelength	1310nm, 1550nm	1310nm, 1490nm, 1550nm
Output power	-2dBm±0.5dB	
Stability	0.05dB/15min	
Other specification		
Adapter	INPUT:AC100-240V50/60Hz OUTPUT:DC6V/1A	
USB connector	Yes	
Battery	2*AANI-MH 1.2V 2500mAh rechargeable	
Working temperature	-5~+50°C	
Storage temperature	-20~+70°C	
Working humidity	0-90% no condensing	

Standard accessories

2*AA Ni-MH battery, AC adaptor, G3 FC/APC adaptor, G3 SC/APC adaptor, PD(728) FC adaptor, PD(728) SC adaptor, APC to APC & APC to PC standard patchcord, USB cable, CD disk, carrying case, user manual, screw-driver

Part Number	Description
FRL2	Dual wavelength optical insertion return loss meter

Part Number	Description
FRL3	Triple wavelength optical insertion return loss meter

FIM-2 Fiber Microscope

Description

FIM series fiber microscope is used to inspect end-face of fibers and check the optic connectivity . It magnifies fibers of 125um diameter 200-400times . The status of a fiber end-face world be displayed on the screen as a enlarged picture by a video signal .

Not only portable , easy in-hand , FIM Series Fiber Microscope is also multi-functional . It can detect simplex and duplex fiber ends located in both male and female connectors, as well as other fiber units . Also, working stability is its another feature . It can detect connectors even installed on the backside of patch panels or inside hardware devices, providing you a great convenience for inspect .

Features

- 600 magnification and 0.5μm resolution
- 2.5 inch LCD monitor, 21mm enlarged diameters
- Enlarged Zones: The ferrule diameter can reach up to larger than 0.3mm^2, The most visible area can reach up to 2mm when adjusting the handle.
- Two channels for image signal input, suitable for both male and female fiber PC/APC end-faces inspection.
- Varies type of tips available
- Analysing software available as optional accessories
- Storage with SD card and 16G support. Able to save, analyze and transmit file without additional software with PC connection.
- It can save computer cost to use SD card to Record the image. Able to load files with removable U disk.
- Brightness/ Contrast adjustments
- Image and voice recording, timing display.
- 9 hours continuous working time, 5000 charging times.

Specification

Technical parameters		
Video	Frequency	FM2.4Hz
	2.5 inch display	960*240 LCD
	Output mode	NTSC/PAL
	Video mode	NTSC/PAL
	Resolution	640*480
	Compressed video format	MPEG-4/AVI
Audio	Frequency range	20Hz~20kHz
	Output channel	Stereo
	Earphone output	L20mW+R20mW(16O)
	Play format	MP3/WAV/MPEG-1
Storage	Size	128MB/1GB
	Storage media	SD/MMC/U disk
Operation Interface	IBM-PC	Windows 98se,me.2000,xp
	USB	USB
	Disk file format	FAT32
	Language	Chinese/English
Power Source	Power supply	DC 5V,2A
	Inner battery	Lithium battery 1800mAh
	Media	≥8h

Part Number	Description
FIM-2	Fiber microscope

Standard accessories

FIM-2 probe, SD card, USB disk, 2.5mm male PC tip, FC/SC female tip, LC/MU female tip, AC/DC adaptor, lithium battery, carrying case, user manual

Optional accessories

ST female PC tip, LC PC tip, E2000 female PC tip, SC/FC female APC tip, 1.25 male APC tip, 2.5mm female tip

FIM-1 Fiber Microscope

Description

FIM Series Fiber Microscope is used to inspect end-face of fibers and check the optic connectivity . It magnifies fibers of 125um diameter 200-400times , enlarging picture through a video signal to the display where the status of fiber end-face is showed clearly in the end .

Not only portable , easily in-hand , FIM Series Fiber Microscope is also multi-functional . It can detect simplex and duplex fiber ends located in both male and female connectors, as well as other fiber units . Also, working stability is its another feature . It can detect connectors even installed on the backside of patch panels or inside hardware devices, providing you a completely convenience for inspection .

Part Number	Description
FIM-1	FIM-1 fiber microscope

Features

- 960x240 definition, 3.5 inch LCD monitor
- Power run-out alarm
- Magnetic attachment to equipment
- Battery safe and high volume , ≥5 hours continuous working time
- 0.3mm * 0.3mm Observable Areas, 2mm*2mm Adjustable Areas
- USB adaptor for PC as option

Specification

FIM-1 fiber microscope

Image zoom	200X
Display screen	3.5'' TFT
AV output	PAL/NTSC
Resolution	0.75um
Video	N/A
Audio	N/A
Multiple in display	N/A
Power supply	Li-ion battery 2200mAh&AC/ DC adaptor
Data storage	N/A
Connect to TV	N/A
Connect to PC	Optional
USB interface	Optional
Number of channels	1CH
Back light	Yes
Battery life	>5 hours
Storage temperature	-10℃-40℃
Working temperature	-20℃-60℃
Dimension	240mm*100*35mm
Net weight	580g

Standard accessories

FIM-1 probe, LC-F, SC/FC connector, 2.5mm PC male tip, Lithium battery, AC/DC adaptor, user manual, carrying case

Optional accessories

ST-F, LC adaptor, E2000-F, SC-F-APC, FC-F-APC, 1.25 male PC tip, 2.5 male APC tip, USB function related

FHA2 Series Optical Attenuator

Description

Fibercasa provides high precise digital optical attenuator. The FHA2 digital variable optical attenuator is a compact, portable instrument widely used in fiber link certification and routine maintenance as well as in lab environment.

Features

- Low insertion loss,wide attenuation range
- Two attenuation steps are available:1dB, 0.05dB
- Reference function
- Presetting values to save frequently used values
- Suitable for the testing project of optical transmisson system
- Able to be applied in test lab & other fiber optical works

Part Number	Description
FHA2S01	FHA2S01 digital variable optical attenuator, 0~80dB, 1310nm/1550nm

Part Number	Description
FHA2S02	FHA2S02 digital variable optical attenuator,0~60dB, 1310nm/1550nm

Specification

	FHA2S01	FHA2S02
Attenuation Range	3~80dB	3~60dB
Fiber Type	SMF 9/125μm	
Attenuation mode	Single-directional	
Calibrated Wavelengths	1310nm/1550nm	
Linearity	≤0.3dB	
Accuracy	0.2dB@0~30dB	0.2dB@0~20dB
	1.0dB@30~60dB	0.5dB@20~50dB
	2.0dB@60~80dB	1.0dB@50~60dB
Insertion Loss	<3dB	
Return Loss	>50dB(PC type connector)	
Max Input Power	+24dBm	
Power Supply	1.2V Ni-MH Battery *2pcs	
Connector	Interchangeable FC/PC,SC/PC connectors. (FC/APC,SC/APC are available at time of ordering)	
Operating Temperature	-10℃ to +50℃	
Storage Temperature	-20℃ to +60℃	
Relative Humidity	0%~95%(non-condensing)	
Dimension(mm)	160L*76W*45H(mm)	
Net Weight	360g(Battery included)	

Optional accessories

2*AA Ni-HM rechargeable battery, 2* FC adaptor, 2*SC adaptor, AC adaptor, screw-driver, user manual

OVA-02 Optical Variable Attenuator

Description

Fiber optical attenuator is a device used to reduce the power level of an laser source. Fibercasa portable variable attenuator OVA-02 performs just as well in laboratory environment as it does in field environment.

Part Number	Description
OVA-02	OVA-02 optical variable attenuato

Features

- Operation by the single rotary knob, easy and fast
- Reliable bi-directional attenuation
- Double scale indication
- Large attenuation range
- No powering system is needed
- Unlimit input power

Specification

OVA-02	
Output wavelength	1310nm&1550nm
Attenuator mode	Bi-directional and continuous
Connector	FC/PC
Insertion loss	<3dB
Signal type	CW
Attenuating range	3~60dB
Operation temperature	-10to+50℃
Storage temperature	-20to+70℃
Dimension(mm)	115L*65W*30H
Standard accessories	FC/PC connector, user manual, carrying bag, test report

Standard accessories

FC/PC connector, user manual, carrying bag, test report

Customization

SC or ST adaptor

FHV1 Series Visual Laser Source

Description

Fibercasa provides high precise visual laser source. The FHV1 series VLS are a compact but powerful visual laser source. With an output power up to 8dBm, FHV1 could be used to locate sharp bends &. breaks in jacket or bare fiber within 10Km. It could also be used to identify the connectors in patch panels and identify the fibers during splicing operation.

Features

- Durable design makes it durable and easy to use
- Mini size, light weight, great portability
- Adjustable output power
- Back-light LCD display
- Auto-power off

Part Number	Description
FHV1A	FHV1A visual laser source, 650 ± 10nm,FC/PC (interchangeable SC,ST) connector,0, 3, 8 dBm

Part Number	Description
FHV1B	FHV1B visual laser source, 650 ± 10nm,FC/PC (interchangeable SC,ST), 0,-3 dBm

Specification

	FHV1A	FHV1B
Emitter level	CLASS IIIB	CLASS II
Wavelength	650 ± 10nm	
Emitter Type	LD	
Connector Type	FC/PC	
Modulated Frequency	2 Hz/CW	
Output Power	0, 3, 8 dBm (adjustable)	0, -3 dBm (adjustable)
Power Supply	AC/DC adaptor &. Lithium Battery	
Battery Life	20 hrs. (continuous operation)	
Operating Temp.	-10 ~ +50℃	
Storage Temp.	-20 ~ +70℃	
Humidity	0 ~ 95% (non-condensing)	
Weight	140 g	
Dimension	115*65*30 mm	

Standard accessories

Lithium battery, FC adaptor, AC adaptor, user manual, screw-driver

F2H VLS-8 Series Mini Visual Laser Source

Description

Grandway provides the lastest F2H VLS-8 series mini visual laser source. The design of this visual laser source is totally comply with the human engineering. It's small in size, easy to operate, portable and integrated with a launching indicator.

A visual laser is usually used to inspect the damaged or broken point of a optical fiber, cable, patchcord and etc. If the inspected fiber does have a defect, user could find the visual laser at the broken or damaged point.

Grandway VLS-8 series visual laser is suitable for both single mode and multiple mode fibers. The performance of the visual source will act a little different on different fiber coat and color.

Part Number	Description
VLS-8-1	VLS-8-1 visual laser source, output power ≥1mW, about 5km
VLS-8-10	VLS-8-10 visual laser source, output power ≥10mW, about 12km
VLS-8-15	VLS-8-15 visual laser source, output power ≥15mW, about 14km
VLS-8-30	VLS-8-30 visual laser source, output power ≥30mW, about 15km

Features

- Totally comply with the human engineering design. Small, portable and durable
- Standard multi-adaptor can be applied to connect with almost any adaptor type. Also provides interchangeable fiber adaptors of serval common types
- Higher output laser power, Max 15km detecting range
- Integrated with continuous wave and 2Hz modulated wave outpur function

Specification

Technical parameter				
Model	VLS-8-1	VLS-8-10	VLS-8-15	VLS-8-30
Laser launcher level①	CLASS IIIA	CLASS IIIB	CLASS IIIB	CLASS IIIB
Output power②	≥1mW	≥10mW	≥15mW	≥30mW
Detecting range③	about5km	about12km	about14km	about15km
Battery life④	about23hours	about12hours	about10hours	about6hours
Laser launcher type	LD			
Optical connector	Un / FC(optional)			
Output wavelength	650nm			
Modulation frequency	CW / 2Hz			
Power	2*AAA battery			
Working temperature	0℃~+40℃ ; <90%RH			
Storage temperature	-20℃~+70℃ ; <90%RH			
Accessories	2*AAA battery, user manual, packing case			
Dimension & Size	L120mm×W33mm×H30mm / about 67.8g			

Note: ① It is strictly prohibited to direct the human eye and please take precautions to avoid static electricity releasing
② The output power is figured out by testing multiple mode optical fiber in 23℃±3℃
③ The testing range will be different in different fibers
④ The battery life is figured out by testing two new AAA battery in 23℃±3℃.The battery life will be a little different by using different AAA battery.

OFI-3 Optical Fiber Identifier

Description

The OFI-3 Optical Fiber Identifier is a low cost, portable instrument designed to detect optical signals without disrupting traffic. Based on non-destructive macrobending technology, the OFI-3 doesn't disrupt traffic, damage or overstress the fiber, enabling efficient, accurate and reliable data acquisition. During maintenance, installations, rerouting or restorations ,it's often necessary to isolate a specific fiber, By simply clamping the OFI-3 onto a fiber. the OFI-3 will indicate if there is a signal ,a modulated signal, or traffic and show signal direction.

Part Number	Description
OFI-3	Fiber identifier

Features

- "One button meter", convenient and easy to use
- Different adapter for deferent bare fiber and nail fiber
- Detect a variety of optical tones,270Hz,1kHz and 2kHz
- Powered by 2 units of 1.5V AA alkaline batteries
- RB0.25mm,RB0.9mm,RB3.0mm plungers available

Specification

Recognizable Wavelength Range	900 to 1650nm
Recognizable Signal Type	CW,2kHz,1kHz,270Hz±5%
Detector Type	InGaAs 2pcs
Clamp Type	H0.9/0.25 for bare fibers; H3.0 for jacketed fiber
Sensitivity @1310nm	+11dB to-20 dBm (Continuous Wave); +11dBto -10 dBm (Modulated Signal)
Sensitivity @1550nm	+11dB to-30 dBm (Continuous Wave); +11dBto -18dBm (Modulated Signal)
LED Indicaltor	Signal traffic;signal frequency (2kHz/1kHz/270Hz);signal intensity (5 grades);low battery
Operating Temperature	-10 to +50℃
Storage Temperature	-20 to +70℃
Power Supply	1.5V AA batteries*2pcs
Dimension(mm)	202L*62W*36H
Weight(g)	300

Standard accessories

Adaptor(RB 0.25mm, RB0.9mm, RB3.0mm), carrying case, user manual, CD disk

Optional accessories

RB2.0mm adaptor

OTS Series Optical Talk Set

Description

Fibercasa provides handheld durable optical talk set. The dynamic range of OTS-4 is 50dB at 1550nm. The high dynamic range ensures the quality of voice and long distance transmission.

Why should we use the optical talk set? In some remote areas, the mobile phone may be out of service and tow operators, who are laying down a optical cable for optical network, have to have a conversation, in these situations, the talk set is essential. With the talk set the two operators can have a conversation via a intact optical fiber. It is easy and reliable.

Part Number	Description
OTS-4	OTS-4 optical talk set, A:1310nm,B:1550nm (unit A works at 1310nm, unit B works at 1550nm), FC/PC connector,50dB

Features

- Power-saving design,long-time operation
- Articulate voice,low background noise
  Judgmatical calling function
  32 steps volume control
- Low-power alarm
- Maximum dynamic range 50dB@1550nm for long distance communication
- Able to be used as a steady laser source

Specification

	OTS-4
Wavelength	A:1310nm,B:1550nm (unit A works at 1310nm, unit B works at 1550nm)
Telecommunication System	Full duplex communication
Fiber Type	SM & MM (the dynamic range will shrink 20dB for MM fiber)
Spectral Width	<15nm
Adaptor Type	FC/PC
Dynamic Range	50dB
Output Power	-3dBm
Power Supply	Replaceable build-in Ni-MH Battery & .AC/DC adaptor
Operating Hours	40 hours (standard)
Tri-party Communication	√
Hands-free Speaker	YES
Dimension	220L*110W*45H
Operating Temperature	-10~+50℃
Storage Temperature	-20~+70℃
Operating Humidity	<90%(Non-condensing)
Net Weight	550g (including battery)
Standard accessories	
12*AA rechargeable battery, 2*headphone, carrying case, user manual, CD disk, 2* AC adaptor	
Optional accessories	
Clamp for optical talk set, tri-party communication line	

ADT-10 ADLS2+ Tester

Description

ADT-10 ADSL Tester is one kind of handheld and large display meter for analyzing and testing ADSL2+. It enables engineer to verify the ADSL transmission parameters, proceed with PING test, DMM and trouble -shooting. It is a wise choice to maintainers, this meter has excellent function of activate service validating and line fault solving.

Part Number	Description
ADT-10	Integrated ADSL2+ tester

Features

- Support multiline standard.
- Suitable for testing ADSL, ADSL2+ and READSL
- Stable design, portable. 2.8 inch color LCD display
- Programmable auto power-off function
- User-friendly interface.
- Up to 99results storage.
- Management software available for uploading testing.
- Result via RS232.

Specification

Applied standards	ITU G.992.1 (G.dmt) , ITU G.992.2 (G.lite) , ITU G.994.1 (G.hs) , ANSI T1.413 issue #2 , ITU G.992.5 (ADSL2+) Annex L。Max range 6.5km , suitable for ADSL, ADSL2, READSL	
Channel rate	Upstream : 0～1.2Mbps ; downstream : 0～24Mbps	
Attenuation	0～63.5dB	
SNR margin	0～32dB	
Voltage	DC: -110V~110V	tolerance : ±5%±2V
	AC: 0~290V	tolerance : ±5%±2V
Loop resistance	0~20KΩ	tolerance : ±3%±2Ω
Insulation resistance	0 ~ 1.0MΩ	tolerance : ±0.1 MΩ
	1.0 ~ 50MΩ	tolerance : ±10%±0.5 MΩ
Capacitance	0 ~ 10nF	tolerance : ±2nF
	10 ~ 1000nF	tolerance : ±3%±2nF
Power supply	2000mAH rechargeable lithium battery	
Temperature	Working temperature : -30℃ to +55℃	
	Storage temperature : -30℃ to +60℃	
Working humidity	5% to 95%	
Dimension	201×92×36mm	
Weight	460g	

Standard accessories

RJ45-RJ45 cable, RJ11-RJ11 cable, RJ11-crocodile cable, DMM cable, CD disk, user manual, Battery, AC/SC adaptor

FHE-1 E1/2M Bit Error Tester

Description

FHE-1 is a hand-held equipment designed for 2M bit error rate test, applicable to telecommunication access networks, transmission networks and the start-up, check and maintenance of optical communication systems.

Part Number	Description
FHE-1	FHE-1 E1 tester

Features

- Hand-held structure, solid design, especially suitable for the fieldwork
- LCD display with backlight, menu operation
- Data storage capacity up to 90 sets
- Test results and real-time clock could be saved safely with a standby Ni-MH rechargeable battery
- LED alarm and status indicator
- Clock Source: internal, received
- 75 ohm and 120 ohm interfaces available
- Out of service test/in-service test
- Framed/unframed test
- 2Mb/s,N*64Kb/s BER TEST
- Timeslot voice monitoring
- Error insertion: Single&.Fixed rate
- Error bit test, time-slot test ,signal analysis, protocol test
- Measurement results can be printed via external serial port printer

Specification

Technical parameters	
Bit rate	2084Kb/s±50ppm
Interface	75ohm unbalanced, input impedance>2000ohm
Input sensitivity	0~-43dB
Circuitry code	HDB3
Frame type	Framed/umframed
Frame pattern	PCM30,PCM30CRC,PCM31,PCM31CRC
Test pattren	Random pseudocode:2^15-1,2^11-1, Fixed code:1111,0000,1010
Alarm indicator	Signal loss, AIS, Frame Loss, MF Remote Alarm, CRC Error, Patten LOSS, Pemote Alarm
Error insertion	Single error insertion Fixed rate error insertion:10E-3,10E-6
Serial interface	RS-232&.USB
Rechargeable batteries	6*1.2v AA Ni-MH rechargeable batteries, for 8-hour contineous test ,Built-in smart fast charger,4.5 charging hours
Power supply	AC/DC adapter,6*1.2v Ni-MH rechargeable batteries
Dimensions	215mm*100mm*50mm(L*W*H)
weight	700g

Standard accessories

75π unbalance test cable*2, Ni-MH rechargeable battery*6, user manual, serial cable, AC/DC adaptor, 120 πbalance test cable*2, carrying case, CD disk

Optional accessories

Cigarette lighter cable, serial printer

GD300 Handle CATV Signal Level Meter

Description

The GD300 is designed to provide features which are most widely used and favored by professionals in CATV industry at the least cost.It can be used to measure accurately the analogue channels, digital channels efficiently and effectively with high accuracy rate.Mainly it supports C/N,level,channel power measurement,voltmeter function,spectrum analysis and so on . Overall, its functions are easy to use and can be used in a wide range of applications.

Part Number	Description
GD300	GD300 Handle CATV Signal Level Meter

Features

- Compact design
- Accurate QAM testing: digital average power,MER,BER
- Support multiple DVB mode: 16QAM, 32AM, 64QAM, 128QAM, 256QAM
- Single channel/Frequency simulated power levels testing.
- Video and audio signal power levels testing
- V/A testing. Show the frequency of video and audio. Field intensity and power level difference simultaneously.
- C/N testing. Slope testing.
- QAM View includes BER,MER,and constellation

Applications

- Cable modem analysis using zero span mode provides accurate, in-service power and C/N measurements.
- QAM view option provides complete analysis of digital TV and forward cable modem signals.
- Find ingress fast with field view option. Cable technicians working in the field can see the reverse path at the headend.
- Full, in-service, proof-of-performance analyzer.
- Fast, sensitive spectrum analyzer.
- Digital QAM carrier demodulation includes 16,32,64,128and256 QAM constellation display with zoom, average digital power level, bit error rate(BER),and 22 to 39dB modulation error rate(MER).

Specification

Technical parameters

Channel/Frequency index		**Digital channel**	
Frequency range	5MHz-862MHz	Modulation mode	Comply with DVB-C/ITU J83-A
Precision	50ppm	QAM mode	16/32/64/128/256 QAM
Resolution	10KHz	Symbol rate	1MS/S-7MS/S
Measurement band width	280KHz	Band width	Set by user
Frequency step	50KHz,100KHz,500KHz	MER	22-39dB
Channel type		Precision	±2dB
Analog TV	TV	BER	1E-4-1E-9
Digital TV	16/32/64/128/256 QAM	**Carrier-noise ratio(C/N)**	
Frequency/channel	SIGL	Signal input range	>70dBuV
Analog power level testing		Measuring range	20dB-50dB
Measuring range	25dBuV-120dBuV	Precision	±2dBuV
Precision	±1.5dB	Resolution	0.5dB
Resolution	0.1dB	**Spectrum analysis**	
Detection method	Peak value detection	Frequency Range	5MHz-862MHz
Input impedance	75Ω	Resolution	100KHz
Digital power level testing		Precision	50ppm
Measuring range	25dBuV-110dBuV	Power levels range	20dBV-120dBV
Precision	±1.5dB	Power levels resolution	0.1dB
Resolution	0.1dB	Power level precision	±1.5dB
Detection method	Average value detection	Dynamic range	60dB
Input impedance	75Ω	Input impedance	75Ω
Voltage testing		RBW	300KHz
Input range	0-80V(AC/DC)	Testing band width	6,12,62MHz,All range scan
Precision	±2V	**Slope testing**	
Resolution	0.1V	Number of channels	5
		Resolution	±0.1dB

General parameters

Audio output	Built-in speaker
Power supply	Li-ion battery(3.7V,2000mAh),5V AC/DC Adaptor/Charger
Charging time	Less than 5 hours (can work about 8 hours)
Dimension	223*110*47(mm)
Net weight	0.43kg
Working temperature	-10°C-50°C
Stand accessories	Carrying Bag,AC/DC Adaptor,Battery,Software,USB cable.

Standard accessories

Carrying Bag,AC/DC Adaptor,Battery,Software,USB cable